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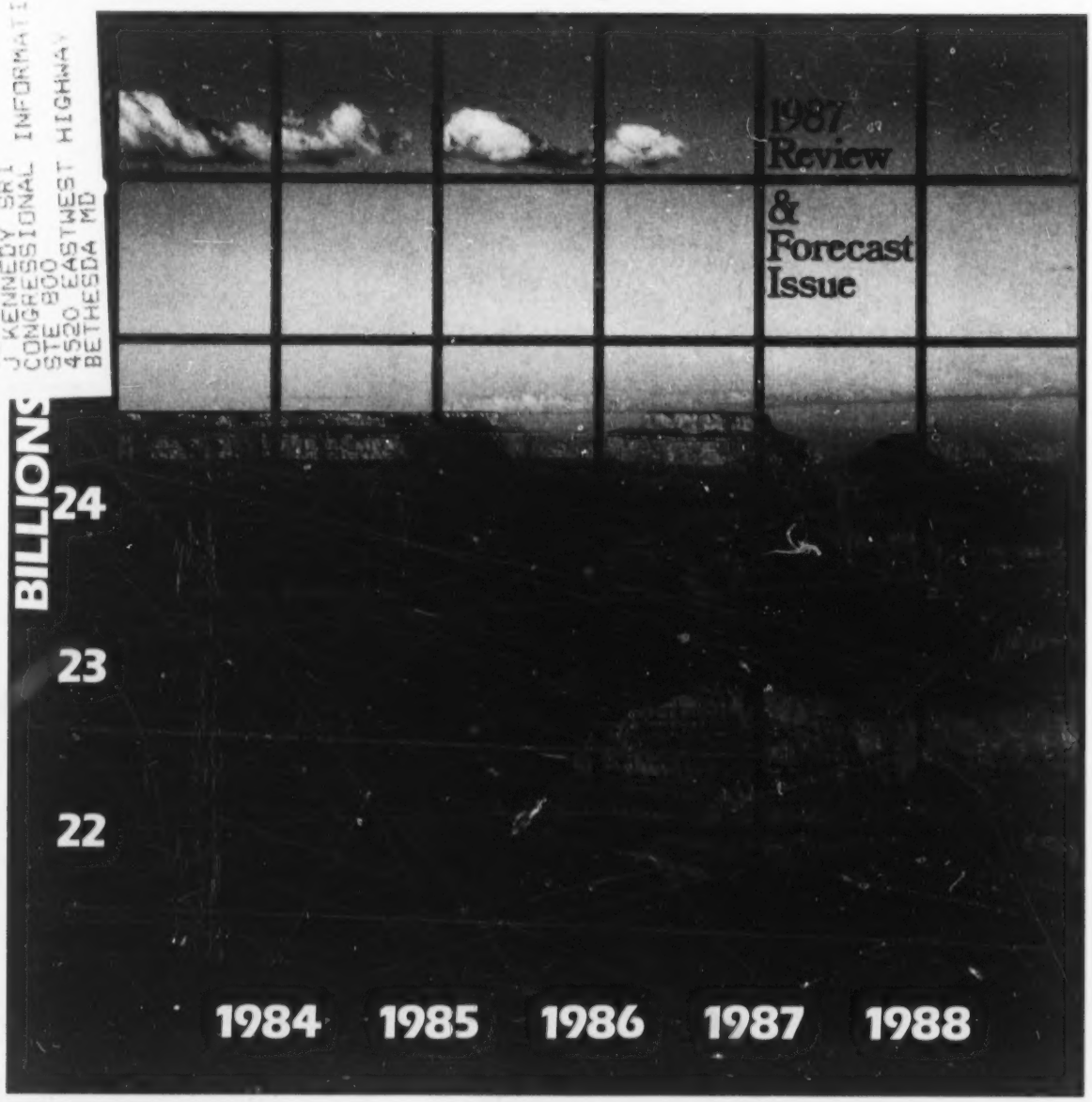


## SPENDING HITS $24 BILLION PLATEAU

AT&T implements FCC-ordered rate cut

Greene nixes Southwestern Bell electronics venture

Siemens unit buys Tel Plus

Centel, Alltel pull plug on Argo

# Telephony

COVERING TELECOMMUNICATIONS SINCE 1901

JANUARY 12, 1987


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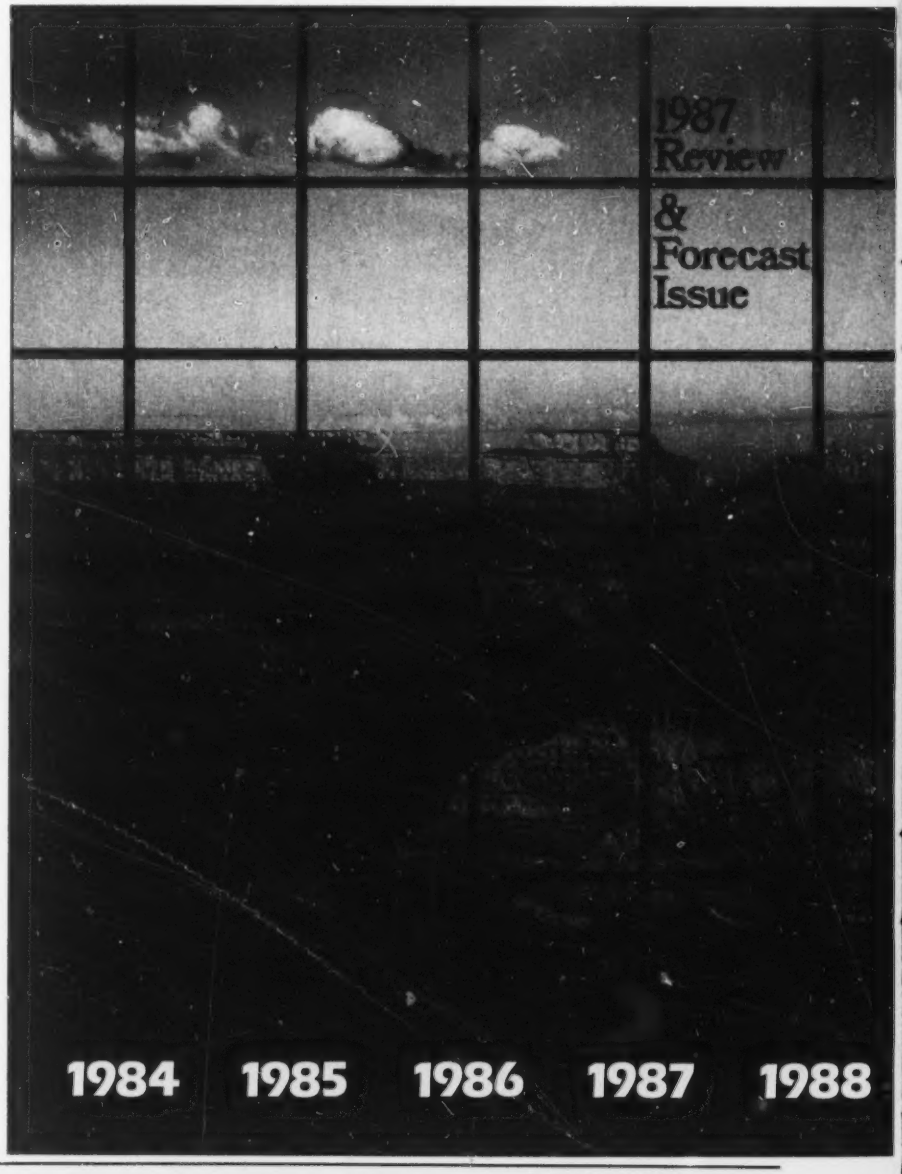
# Carrier Spending Hits a $24 Billion Plateau

CZATDANA INAN, MARKET RESEARCH DIRECTOR, AND LARRY LANNON, EDITOR

*For the third consecutive year, U.S. local exchange and interexchange carriers will spend roughly $24.5 billion in 1987. That number is likely to shrink slightly in the next few years as carriers refine their responses to intensifying competition.*

Cover art by Jim Colao,
cover photo by A.J. Hartman/Comstock




AGGREGATE spending by both local exchange and interexchange carriers in the United States has hit a plateau. No signs which indicate that industry spending levels will budge far from the current plateau in the immediate future are visible.

LECs and IXCs will spend roughly $24.55 billion in 1987, according to research conducted by the Market Research Department of TELEPHONY. The coming year will be the third year in a row aggregate spending by U.S. carriers has hovered around $24.5 billion. In 1985, U.S. carriers spent about $24.37 billion and last year they spent $24.54 billion.

Spending by U.S. carriers is expected to increase by $10 million, far less than 1%, from $24.54 billion in 1986 to $24.55 billion. The rate of growth expected for the coming year is thus significantly less than the growth rate reported for last year, when the 1985 expenditure of $24.37 billion increased some $170 million, also less than 1%, to $24.54 billion.

Further, the flat 1987 growth rate in carrier spending will decline slightly in 1988, when many carriers are expected to try to boost earnings by trimming expenditures.

Spending patterns being established today differ radically from the sharp growth of the 1983-84 period. Spurred by divestiture and intensifying competition, LEC carrier spending rose sharply from $21.83 billion in 1984, the year the divestiture agreement took effect, to $24.37 billion the following year, an annual growth of approximately 12%. Though competition among carriers continues to increase, fewer carriers are planning to compete simply by spending ever larger sums of money in pursuit of market share.

Clearly, carrier investment switch-

*Continued on page 42*

## THE SOURCE

This article is based on the 1987 Carrier Market Forecast, this year's version of an annual study done by TELEPHONY's Market Research Department. The study is available to the public. For more information, contact Market Research Director Czatdana Inan, TELEPHONY, 55 E. Jackson Blvd., Suite 1100W, Chicago, Ill. 60604; telephone: (312) 922-2435.

## TABLE 1 LOCAL EXCHANGE CARRIERS' POST-DIVESTITURE BUDGETS

| EQUIPPED LINES[a] JUNE 30, 1986 | EST. YEAR-END % EQUAL ACCESS 1985 | 1986 | 1987 | | POST-DIVESTITURE CONSTRUCTION SPENDING ACTUAL 1984 | 1985 | ESTIMATED 1986 | 1987 | 1988 |
|---|---|---|---|---|---|---|---|---|---|
| | | | | *7 REGIONALS* | | | | | |
| | | | | Ameritech | | | | | |
| 4,802,832 | 59% | 82% | 92% | Illinois | 500.6 | 673.6 | 654.7 | 655.0 | 675.0 |
| 1,724,981 | 55 | 81 | 84 | Indiana | 196.4 | 207.5 | 228.0 | 224.0 | 200.0 |
| 4,522,325 | 46 | 72 | 81 | Michigan | 427.0 | 464.0 | 529.0 | 555.0 | 569.0 |
| 3,559,431 | 51 | 79 | 82 | Ohio | 355.6 | 342.9 | 361.4 | 367.8 | 342.9 |
| 1,835,468 | 73 | 94 | 95 | Wisconsin | 203.6 | 208.3 | 190.0 | 180.0 | 180.0 |
| 16,445,037 | | | | | 1,683.2 | 1,896.3 | 1,963.1 | 1,981.8 | 1,966.9 |
| | | | | Bell Atlantic | | | | | |
| 6,618,942 | 46 | nr | nr | C&P Companies | 777.7 | 929.2 | 940.0* | 925.0* | 910.0* |
| 4,898,800 | 46 | 81 | 91 | New Jersey | 538.8 | 519.0 | 501.0* | 500.0* | 490.0* |
| 5,880,000* | 85 | 93 | 97 | Bell of PA | 532.0 | 629.0 | 709.0 | 690.0* | 685.0* |
| 17,397,742 | | | | | 1,848.5 | 2,077.2 | 2,150.0 | 2,115.0 | 2,085.0 |
| | | | | BellSouth | | | | | |
| 7,738,789 | 52 | 64 | 80 | South Central | 952.7 | 1,020.2 | 1,029.0* | 1,065.0* | 1,042.9* |
| 8,678,178 | 69 | 81 | 88 | Southern Bell | 1,321.3 | 1,594.9 | 1,608.1 | 1,727.3 | 1,708.1 |
| 16,416,967 | | | | | 2,274.0 | 2,624.1 | 2,628.1 | 2,792.3 | 2,751.0 |
| | | | | Nynex | | | | | |
| 10,004,500 | 39 | 55 | 63 | New York | 1,108.3 | 1,248.6 | 1,292.0 | 1,346.8 | 1,328.0 |
| 5,290,000* | | | | New England | 769.0 | 853.0 | 751.0 | 817.0 | 836.0 |
| 15,294,500 | | | | | 1,877.3 | 2,101.6 | 2,043.0 | 2,163.8 | 2,164.0 |
| 13,400,000* | nr | 73 | 85* | Pacific Telesis | 2,040.3 | 2,163.1 | 1,978.7 | 1,950.0* | 1,930.0* |
| 10,926,934 | 54 | 78 | 84 | Southwestern | 1,719.9 | 1,952.3 | 1,896.0 | 1,775.0 | 1,779.5 |
| | | | | U S West | | | | | |
| 6,394,887 | 54 | 77 | 80 | Mountain | 900.4 | 1,003.3 | 890.0 | 850.0 | 830.0* |
| 3,432,154 | 40 | 63 | 65 | Northwestern | 409.3 | 531.4 | 428.0 | 426.9 | 446.8 |
| 2,877,121 | 44 | 85 | 92 | Pacific NW | 352.0 | 394.0 | 390.0 | 368.0 | 350.0* |
| 12,704,162 | | | | | 1,661.7 | 1,928.7 | 1,708.0 | 1,644.9 | 1,626.8 |
| | | | | *TOP 18 INDEPENDENTS* | | | | | |
| 12,094,000 | 3 | 52 | 75 | GTE | 2,173.0 | 2,365.0 | 2,506.0 | 2,467.0 | 2,428.0 |
| 3,558,522 | 0 | 1 | 18 | United | 509.4 | 564.4 | 550.0 | 625.0 | 600.0 |
| 2,308,504 | nr | 9 | 13 | Contel | 469.8 | 439.4 | 455.9 | 457.8 | 432.9 |
| 1,674,000* | nr | nr | nr | SNET | 214.0 | 246.0 | 285.0 | 355.0 | 340.0* |
| 1,343,232 | 8 | 19 | 42 | Centel | 162.8 | 165.6 | 185.1 | 174.6 | 178.2 |
| 20,978,258 | | | | | 3,529.0 | 3,780.4 | 3,982.0 | 4,079.4 | 3,979.1 |
| 846,000 | 0 | 19 | 30 | Alltel | 146.0 | 166.0 | 170.0 | 154.0 | 153.0 |
| 887,051 | 21 | 58 | 86 | Cincinnati | 59.5 | 85.2 | 79.7 | 69.0 | 73.8 |
| 704,668 | nr | nr | nr | Puerto Rico Tel | 109.4 | 114.9 | 170.0 | 190.0 | 160.0 |
| 475,000 | 36 | 66 | 86 | Rochester | 56.8 | 94.4 | 84.9 | 95.1 | 83.2 |
| 240,024 | nr | nr | nr | Century | 37.3 | 39.1 | 40.6 | 36.0 | 40.0 |
| 3,152,743 | | | | | 409.0 | 499.6 | 545.2 | 544.1 | 510.0 |
| 239,640 | nr | nr | nr | TDS | 28.1 | 27.7 | 32.4 | 31.7 | 30.0* |
| 221,271 | 0 | 59 | 85 | Lincoln | 30.4 | 30.9 | 33.9 | 31.5 | 31.6 |
| 241,965 | nr | 47 | 53 | Pacific Telecom | 30.8 | 48.7 | 45.0 | 40.7 | 45.1 |
| 185,192 | nr | nr | nr | C-TEC | 20.7 | 22.4 | 25.2 | 27.5 | 29.4 |
| 115,145 | 0 | 0 | 0 | Anchorage | 41.7 | 53.2 | 57.0 | 37.8 | 47.8 |
| 87,160 | 0 | 0 | 0 | Illinois Cons | 11.0 | 12.0 | 10.5 | 7.9 | 7.9 |
| 108,637 | 0 | 0 | 0 | Citizens Ut | 21.1 | 19.3 | 30.2 | 36.3 | 22.0 |
| 75,000* | nr | nr | nr | CP National | 15.2 | 19.2 | 20.5 | 20.0* | 20.0* |
| 1,274,010 | | | | | 199.0 | 233.4 | 254.7 | 233.4 | 233.8 |
| | | | | **LECs' TOTALS** | | | | | |
| 102,585,342 | | | | 7 Regionals | 13,105.7 | 14,743.6 | 14,366.9 | 14,422.8 | 14,303.2 |
| 25,405,011 | | | | Top 18 Independents | 4,137.0 | 4,513.4 | 4,781.9 | 4,856.9 | 4,722.9 |
| 6,351,000* | | | | Other Independents | 730.1 | 796.5 | 843.9 | 857.1 | 833.5 |
| 134,341,353 | | | | | 17,972.8 | 20,053.5 | 19,992.7 | 20,136.8 | 19,859.6 |
| | | | | LEC +/− 1985 view versus current view | | +0.6% | +0.7% | −1.0% | −1.8% |
| | | | | Current view of 1988 versus 1987 | | | | | −1.4% |

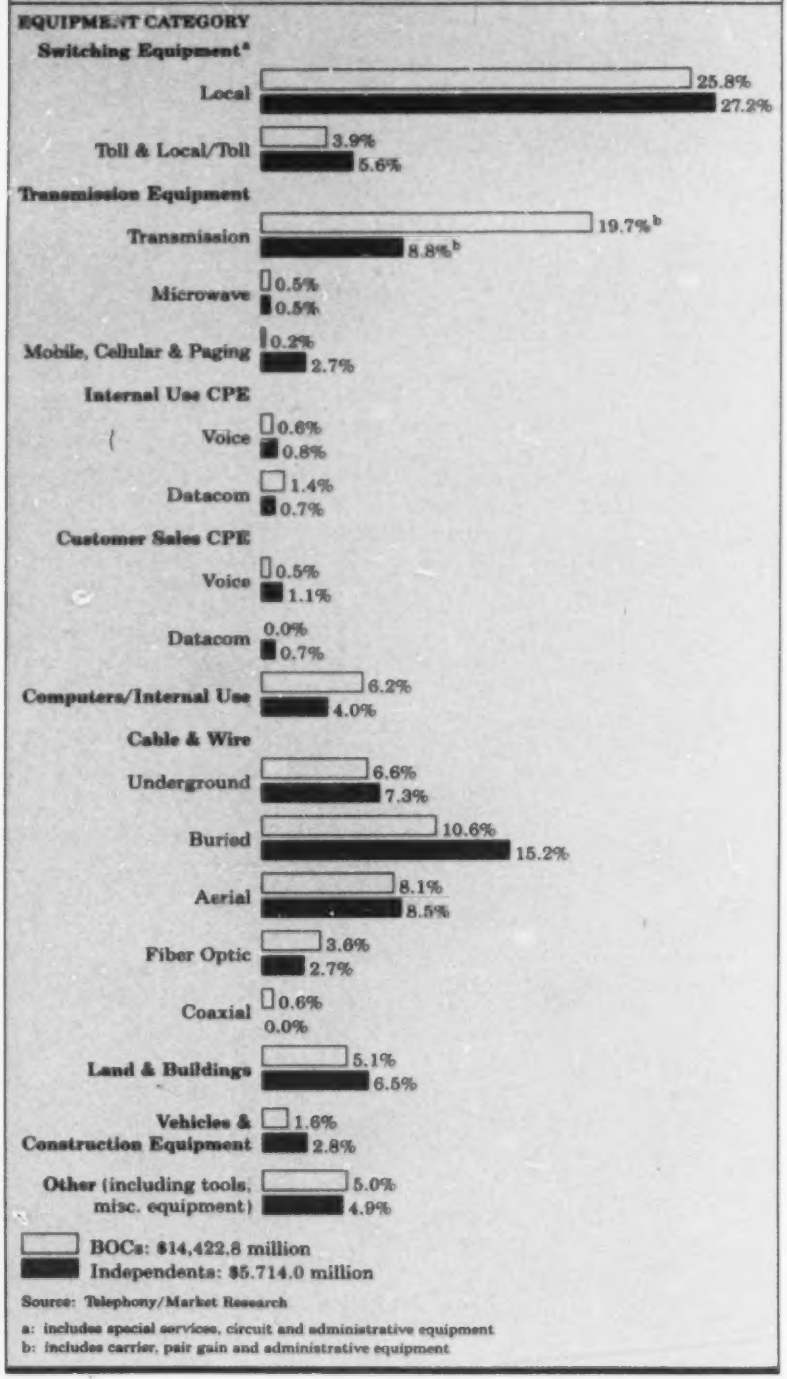
Source: Telephony/Market Research

* estimated by Telephony

nr: no report

a: access lines are generally 85% of total equipped lines

**FIGURE 1 LECs' DISTRIBUTION OF 1987 CAPITAL EXPENDITURES**




ing and transmission technology will continue to be substantial. This spending is largely aimed at the business customer, the key to all carriers' futures. No carrier can hope to retain, much less attract, more business customers if it does not have a top-notch network based on sophisticated applications of leading edge switching and transmission technologies.

As the capabilities of telecommunications technology increase, the level of network-based competition rises. Business customers know what the latest telecommunications technologies can provide, and refuse to accept any standard but the best, which means maximum capability tailored to each customer's specific business needs at the lowest possible price.

High customer expectations, thus, will ensure that all carriers continually strive to improve and refine their networks. The carriers' efforts, in turn, will ensure that aggregate spending by U.S. carriers will remain healthy, though it will dip from its current plateau.

The LECs will again dominate spending by U.S. carriers. As always, LECs can be divided into three distinct groups.

The first, the regional holding companies, will continue to be the most important economic players in the industry. The second group, the top 18 Independents, will play a far more important economic role than the third group, the other Independents, though the other Independents include more than 1400 individual companies. Of course, the fourth segment of the carrier market, the IXCs, also will continue to play a crucial role.

LECs will spend $20.14 billion and IXCs will spend $4.39 billion this year.

The economic importance of the RHCs is almost impossible to exaggerate. The RHCs—or, more precisely, their operating telephone company subsidiaries—will account for 60% of all expenditures by U.S. carriers in 1987. The total expenditures by the RHCs are expected to be $14.42 billion this year. The RHCs will account for roughly 72% of all 1987 LEC expenditures. The Independents, of course, will account for the remaining 18%.

The 18 largest Independents are expected to spend $4.86 billion in 1987. The five largest Independents—GTE, United, Contel, Southern New England and Centel—will account for $4.08 billion, or 84%, of the expenditures made by the top 18 Independents and roughly 24% of all LEC expenditures this year.

The 18 largest Independents include seven companies which will spend more than $100 million in 1987. Those companies and the amounts they plan to spend this year are:

- GTE, $2.47 billion;

*Continued on page 44*

- United, $625 million;
- Contel, $457.8 million;
- Southern New England, $355 million;
- Puerto Rico Tel, $190 million;
- Centel, $174.6 million; and
- Alltel, $154 million.

The seven largest Independents, thus, will spend roughly $4.42 billion of the $4.86 billion the 18 top Independents will spend. The seven Independents with 1987 budgets in excess of $100 million also will account for roughly 77% of the $5.71 billion Independents of all sizes will spend this year.

The next 11 largest Independents will spend a total of $433 million in 1987. In order, those 11 large Independents and the amounts they will spend in 1987 are:

- Rochester, $95.1 million;
- Cincinnati Bell, $69 million;
- Pacific Telecom, $40.7 million;
- Anchorage, $37.8 million;
- Citizens Utilities, $36.3 million;
- Century, $36 million;
- TDS, $31.7 million;
- Lincoln, $31.5 million;
- C-TEC, $27.5 million;
- CP National, $20 million; and
- Illinois Consolidated, $7.9 million.

All the other Independents combined will spend a total of approximately $843.9 million during 1987.

These small telcos represent approximately 4% of LEC expenditures. For a breakdown of the projected expenditures of the LECs, see Table 1.

Considered in purely economic terms, the structure of the LEC industry resembles a comet with a huge, dramatic head and a very long tail trailing away gradually into very small, individual elements. Without a tail, there cannot be a comet. But it is the head of the comet to which the eye is most readily attracted—and it is the larger LECs, particularly the RHCs, which attract the most attention in the marketplace.

Individual RHCs each will spend billions of dollars in 1987. In order, they will spend:

- BellSouth, $2.79 billion;
- Nynex, $2.16 billion;
- Bell Atlantic, $2.12 billion;
- Ameritech, $1.98 billion;
- Pacific Telesis, $1.95 billion;
- Southwestern Bell, $1.78 billion; and
- U S West, $1.65 billion.

The sheer size of the RHCs' expenditures is noteworthy. Among all other carriers, only AT&T Communications, which will spend about $2.5 billion this year, and GTE, which will spend slightly less than $2.5 billion in 1987, are comparable. But perhaps the shifts in RHC spending which will occur relative to 1986 expenditures are even more significant. Those shifts presage changes which will sweep the LEC industry in the post-1987 period, and reflect similar shifts already visible in the Independent sector of the LEC industry.

Specifically, four of the seven RHCs will spend less in 1987 than they did in 1986. Only Ameritech, BellSouth and Nynex will increase their expenditures in the coming year. Bell Atlantic will cut its expenditures from an estimated $2.15 billion in 1986 to $2.12 billion in 1987. Pacific Telesis will trim its outlays from $1.98 billion in 1986 to $1.95 billion in 1987. Southwestern Bell plans to spend $1.78 billion in 1987, down from the $1.9 billion it spent last year. U S West will cut its expenditures from $1.71 billion in 1986 to $1.65 billion in 1987.

Nynex will increase its expenditures from $2.04 billion in 1986 to $2.16 billion in 1987. BellSouth's $2.79 billion outlay in 1987 will be up from the $2.63 billion it spent last year. Ameritech will spend $1.98 billion in 1987, up from the $1.96 billion it spent last year.

Last year, four of the seven RHCs increased their expenditures and three trimmed theirs. This year, those numbers are reversed.

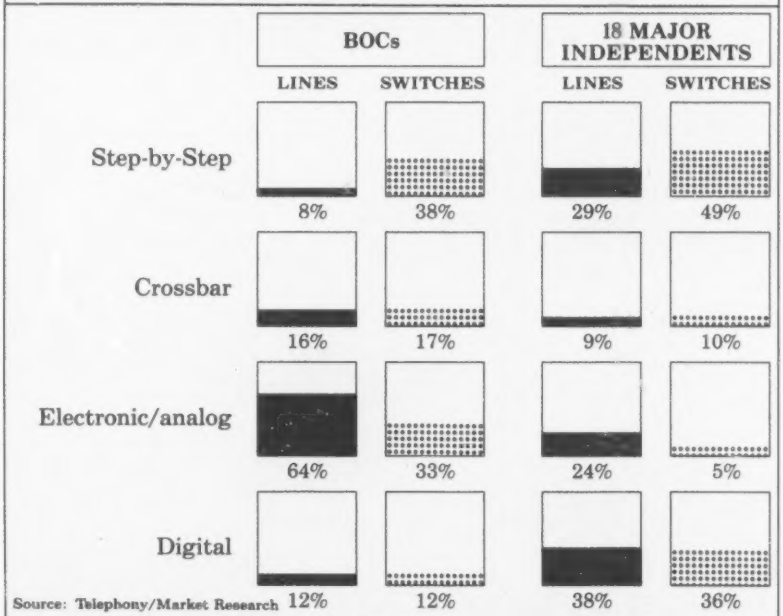
The $2 billion per year figure continues to be an interesting benchmark for RHC expenditures. No RHC is expected to move past the $2 billion figure this year, nor are any current members of the $2 billion club expected to trim their expenditures by enough to drop out of the club.

Thus, RHC expenditures seem to have entered a period of stability. The most visible trend is to cautiously and carefully cut costs. But no one is cutting costs too dramatically. Many of the larger Independents seem to be following the RHCs' pattern.

The same trend is visible among the IXCs, though it is less pronounced. Aggregate IXC spending of $4.39 billion in 1987 will represent 18% of total LEC expenditures during the year. Five IXCs dominate the

*Continued on page 46*

**FIGURE 2 LECs' DISTRIBUTION OF LOCAL SWITCHES AND EQUIPPED LINES***




Source: Telephony/Market Research

a: base is 122.1 million lines and 8,608 switches for BOCs.
25.3 million lines and 8,067 switches for 18 Major Independents

## TABLE 2 INTEREXCHANGE CARRIERS' POST-DIVESTITURE COMPOSITE

| | NET REVENUES + ACCESS CHARGES = GROSS REVENUES | | | | | | 1986 MARKET SHARE | |
|---|---|---|---|---|---|---|---|---|
| | NET REVENUES ($000,000) | | | ACCESS CHARGES ($000,000) FOR LOCAL INTERCONNECTION | | | NET REVENUES vs. REVENUES[a] | GROSS |
| | 1984 | 1985 | 1986 | 1984 | 1985 | 1986 | | |
| AT&T Communications | $15,780.8 | $17,267.6 | $19,081.3[b] | $20,633.0 | $21,521.2 | $19,850.7[b] | 74.6% | 80.2% |
| MCI | 1,959.3 | 2,542.3 | 3,562.3[c] | 479.7 | 874.0 | 1,570.1[c] | 13.9% | 10.6% |
| US Sprint[d] | 1,467.1 | 1,687.0 | 2,120.0[e] | 532.0* | 676.0* | 1,063.0* | 8.3% | 6.6% |
| ALC Communications | 343.0 | 436.3 | 465.0[f] | 171.1 | 201.7 | 263.7[f] | 1.8% | 1.5% |
| NTN | g | g | 350.0[g] | g | g | 180.0* | 1.4% | 1.1% |
| | $19,550.2 | $21,933.2 | $25,578.6 | $21,815.8 | $23,272.9 | $22,927.5 | | |
| Increase/Decrease | | +12.5% | +16.6% | | +6.7% | −1.5% | | |
| Less NTN | | +12.5% | +15.0% | | +6.7% | −2.3% | | |

| | CONSTRUCTION EXPENDITURES ($000,000) | | | | 1984-87 | 4-YEAR | 1984-86 SPENDING AS % |
|---|---|---|---|---|---|---|---|
| | 1984 | 1985 | 1986 | 1987 | SPENDING | AVERAGE | PERIOD'S NET REVENUES |
| AT&T Communications | $1,341.9 | $2,108.9 | $2,396.1 | $2,500.0* | $ 8,346.9 | $2,086.7 | 11.2% |
| MCI | 1,157.2 | 1,000.1 | 950.0 | 800.0 | 3,907.3 | 976.8 | 38.5% |
| US Sprint | 1,330.0 | 1,025.0 | 920.0* | 900.0 | 4,175.0 | 1,043.8 | 62.1% |
| ALC Communications | 22.7 | 36.9 | 36.0 | 36.0* | 131.6[h] | 32.9 | na |
| NTN | 4.5 | 150.0 | 250.0 | 150.0 | 554.5 | 138.6 | na |
| | $3,856.3 | $4,320.9 | $4,552.1 | $4,386.0 | $17,115.3 | $4,278.8 | |
| Increase/Decrease | | +12.0% | +5.4% | −3.6% | | | |

Source: Telephony/Market Research

* estimated by Telephony

na: not applicable

a: base is sum of net revenues and access charges

b: estimated on $14.3 billion and $14.9 billion, respectively, first 9 months of 1986.

c: estimated on $2.7 billion and $1.2 billion, respectively, first 9 months of 1986.

d: combined GTE Sprint and US Telecom.

e: based on estimated revenues of $1.5 billion, first 9 months of 1986.

f: estimated on $348.3 million and $197.8 million, respectively, first 9 months of 1986.

g: projected revenues of first full year of operation. National Telecommunications Network (NTN) consortium, formed February 1986, includes Consolidated Network (St. Louis, MO), LDX (Chesterfield, MO), Litel (Worthington, OH), Microtel (Boca Raton, FL), SouthernNet (Atlanta, GA), Southland Fibernet (Pensacola, FL) and Williams Telecommunications (Tulsa, OK).

h: does not include leased facilities.

market. AT&T Communications continues to lead the market in expenditures by a very wide margin. The company will spend roughly $2.5 billion this year, or about 57% of total IXC expenditures.

The second leading IXC continues to be MCI, which plans to spend $800 million in 1987. The fourth and fifth largest IXCs—ALC Communications and the National Telecommunications Network—will spend $36 million and $150 million, respectively.

The wild card in the IXC deck is US Sprint, a company formed by the merger of US Telecom and GTE Sprint in mid-1986. In our 1986 spending survey, GTE Sprint was the third largest IXC and US Telecom was the fifth largest. US Sprint is building a state of the art fiber optic transmission network and plans to compete by offering the high quality service the fiber optic technology can provide.

In 1987, US Sprint will spend roughly $900 million, or about $100 million more than MCI.

For details of IXC spending plans for 1987, as well as information about market share, the relationships among net revenues, access charges and gross revenues for each of the IXCs and spending as a percentage of net revenues, see Table 2.

For both LECs and IXCs, the business community continues to be the marketing focus. The twin keys to defending and expanding market share continue to be deployment of digital switches and high capacity transmission links, especially fiber optic technology. The importance of switching and transmission technologies to LECs is shown in Figure 1, which breaks 1987 LEC budgets down into their major components. The figure shows that local and toll switching equipment, the three types of transmission equipment, and cable and wire expenditures will total roughly 79% of RHC capital expenditure budgets this year and approximately 78.5% for the Independents.

Figure 2 demonstrates the importance of digital switching to LECs. Note that the 18 major Independents have converted a larger proportion of their switches to digital technology than the RHCs have. The RHCs have embarked on an intense program to move as rapidly as possible toward further digitalization of their switching vehicles.

A similar and parallel effort is being made in the transmission network. Fiber optic cable is playing an ever more important role. Table 3 indicates how heavily RHCs are relying on fiber optic technology.

LECs also are striving to improve the efficiency with which they monitor and operate their increasingly sophisticated and complex networks. Carriers are computerizing their operations as much as possible. Table 4 compares expenditures by two RHCs, Ameritech and BellSouth, on both fiber optic and computer technologies. It suggests that the drive to offer better services to business customers, indicated by the expenditures on fiber optic technology, is at least matched by a corresponding drive to increase control over high capacity networks, indicated by ex-

*Continued on page 48*

penditures on computers for internal uses.

Animated though they are by the necessity of competing effectively for business customers, LECs in today's highly competitive market are keenly aware of the need to show consistently strong earnings, in part by imposing cost reductions. The drive to provide more sophisticated services for ever more demanding business customers, which entails substantial expenditures on switching and transmission technologies, as well as on computer applications which facilitate operational efficiency, is accompanied by a drive to boost earnings by controlling costs. These dual drives could come into conflict, and will place increasing importance on top management's ability to keep them in a productive balance.

The relationship between these dual drives is most developed among the RHCs. In general, RHCs have indicated that they plan to fund construction expenditures solely from internal sources, reducing debt. They hope to lower debt ratios to 40% by the early part of the next decade while achieving annual growth rates in revenues of at least 5%.

In order to achieve its complex goals of competing for business customers, improving earnings and more tightly controlling expenditures, reducing debt and increasing annual revenues, top management must carefully establish priorities. Different RHCs, responsive as they must be to their regional economies, are certain to establish different priorities, in the process creating increasingly differentiated companies. The old Bell System may have been monolithic and the newly divested RHCs may have looked alike at birth, but today the economic pressures which are destined to forge highly individual companies from the supposedly common clay of the old Bell operating companies are doing their work, gradually but inexorably.

Those economic pressures actually are working more rapidly than the RHCs expected when they began their corporate lives.

Projected spending levels by RHCs set in 1985 are lower than initially planned. As Table 1 indicates, aggregate RHC spending levels are down by nearly 2% from 1985 projections. But the difference between individual RHCs is far more instructive than the aggregate level.

Southwestern Bell has cut its spending by 27.4% from 1985 projections. Ameritech has trimmed its 1987 expenditures by 2.7% from 1985 projections. BellSouth, on the other hand, has increased its 1987 expenditures by a robust 9.3% over its 1985 projections.

Unexpected changes in plans are not accidental. They reflect the increasing importance of regional economies and a movement by RHCs toward shorter planning cycles. The condition of the regional economies is of primary importance in formulating long- or short-term plans.

The Southwest, for instance, has been economically devastated by a slump in three essential sectors—mining, energy and agriculture. Southwestern Bell's reduced plans

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**TABLE 3 RHCs' INSTALLED FIBER OPTIC CABLE AS OF JUNE 1986**

| | LOCAL SUBSCRIBER | | JUNCTION (TOLL) | |
|---|---|---|---|---|
| | SHEATH MILES | FIBER MILES | SHEATH MILES | FIBER MILES |
| Ameritech | | | | |
| Illinois | 302 | 11,328 | 905 | 11,473 |
| Indiana | | a | | a |
| Michigan | 757 | 28,575 | 71 | 1,238 |
| Ohio | 328 | 7,247 | 15 | 87 |
| Wisconsin | 569 | nr | nr | nr |
| Bell Atlantic | | | | |
| C&P Companies | 902 | nr | 313 | nr |
| New Jersey | 139 | 11,834 | 274 | 24,566 |
| Bell of Pa. | | b | | b |
| BellSouth | | | | |
| South Central | 558 | 14,304 | 1,825 | 26,465 |
| Southern Bell | nr | 80,607 | nr | 20,475 |
| Nynex | | | | |
| New England | | | | |
| New York | 281 | nr | 998 | nr |
| Pacific Telesis | | c | | c |
| Southwestern | 1,514 | d | 1,480 | d |
| US West | | | | |
| Mountain Bell | 900 | 3,000 | 900 | 17,000 |
| Northwestern | 408 | nr | 1,585 | nr |
| Pacific NW | nr | 18,389[e] | nr | 6,177[f] |

Source: Telephony/Market Research
nr: no report
a: 1,013 sheath miles and 15,372 fiber miles in subscriber and toll network 12/31/85
b: 1,309 sheath miles and 40,000 fiber miles in subscriber and toll network
c: 68,900 fiber kilometers installed in subscriber and toll network 12/31/85
d: 100,078 fiber miles in subscriber and toll network 12/31/86
e: does not include 147 fiber miles of submarine cable
f: does not include 14 miles of submarine cable

**TABLE 4 SELECTED BOC 1987 FIBER VS. COMPUTER SPENDING**

| | FIBER OPTICS | | COMPUTERS/INTERNAL | |
|---|---|---|---|---|
| | $000 | % BUDGET | $000 | % BUDGET |
| Ameritech | | | | |
| Illinois | 20,960 | 3.2 | 28,820 | 4.4 |
| Indiana | 11,424 | 5.1 | 16,128 | 7.2 |
| Michigan | 27,750 | 5.0 | 33,300 | 6.0 |
| Ohio | 14,344 | 3.9 | 20,229 | 5.5 |
| Wisconsin | 11,160 | 6.2 | 17,820 | 9.9 |
| | 85,638 | | 116,297 | |
| BellSouth | | | | |
| South Central | 41,535 | 3.9 | 39,405 | 3.7 |
| Southern Bell | 55,274 | 3.2 | 86,365 | 5.0 |
| | 96,809 | | 125,770 | |

Source: Telephony/Market Research

# Spending

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reflect the dramatically changed economic status of its service territory. The Midwest has also been hit hard by the slump in agriculture, but problems on the farm have been offset to some extent by good economic news elsewhere, though the auto industry, a mainstay of the regional economy, continues to tread water. Thus, Ameritech has adjusted, rather than changed, its economic course. Significantly, its adjustment has been to slightly lower its projected expenditures. The Southeast continues to enjoy a period of strong economic growth. BellSouth's spending plans clearly signal that its management expects the regional economy to sustain its growth rate during the life of the planning period.

Buoyed by strong economic performances during the past three years, some large Independents are planning to increase their spending during 1987. Among the five largest Independents, United is planning to spend an additional $75 million in 1987. Contel will spend $2.1 million more this year and SNET will boost its spending by $70 million.

On the other hand, GTE will trim its 1987 expenditures by $39 million. Centel will cut $10.5 million from its 1986 estimated expenditures.

Only Puerto Rico Tel and Rochester of the next tier of five large Independents will increase their spending in 1987. Rochester will spend $10.2 million more in the coming year than it did in 1986. Puerto Rico Tel will spend a full $20 million more this year than it did last. Alltel, which spent an estimated $170 million in 1986, plans to spend $154 million in 1987, a reduction of $16 million. Cincinnati Bell will spend $10.7 million less this year than it did in 1986, and Century will spend $4.6 million less.

Of the next group of eight large Independents, only two will spend more in 1987 than they did in 1986. C-TEC will increase its spending by $2.5 million, and Citizens Utilities will boost its spending by $6.1 million.

Lincoln will cut its expenditures by $2.4 million in '87. TDS will reduce its expenditures by $700,000 and Pacific Telecom by $4.3 million this year. Illinois Consolidated will cut its expenditures by $2.6 million and CP National by $500,000. Anchorage will slash its expenditures by $19.2 million.

The other Independents, the tail of the comet, will increase aggregate expenditures from $843.9 million in 1986 to $857.1 million in 1987, an increase of $13.2 million, or 1.5%.

No carrier is planning to pad its bottom line merely by reducing expenditures, of course. They also hope to boost revenues from existing customers and add new customers. The picture is clearest at the RHCs.

All RHCs hope to increase usage by—and revenues from—existing customers by enhancing the value of their capabilities. Data traffic, especially, offers significant growth potential, assuming the RHCs are freed from constraints upon their activities in the data market. However, even today, when the divestiture agreement sharply restricts the RHCs, 20% of the traffic on the public switched telephone network is data traffic. It is not only the RHCs which are already handling large volumes of data traffic, either. A full 15% of GTE's volume consists of data traffic and the figure for Centel is 16%.

Digital switches and fiber optic transmission links all increase the facility with which LECs can handle data traffic. The increasing deployment by LECs of packet switched networks will further enhance their data-handling capability. The LECs are preparing for the day when telemetry, electronic mail and electronic banking, electronic shopping and electronic security services become socially and economically significant.

LECs, particularly the RHCs, are also aggressively pursuing new business ventures in related fields. To cite just one example, Southwestern Bell in 1986 acquired most of Metromedia's cellular business. Southwestern Bell's move put it in the nonwireline side of the cellular business as well as the wireline side, and brought it into competition with other RHCs' wireline operations.

During 1987, competition in carrier markets promises to be sharper than ever. Carriers which previously have not competed with one another find themselves face-to-face in related markets. Since the growth markets are also the markets in which the competition will be the hottest, those face-to-face confrontations will take on increasing importance as every carrier attempts to pull ahead in the race for increased earnings.

Market share alone will not determine winners and losers. Profitability, which may or may not be a function of market share depending on the artistry of management, is the key.

Thus, many carriers will selectively reduce expenditures during the coming year, a trend which is expected to accelerate during 1988, as Table 1 suggests.

In setting priorities, management will emphasize those expenditures which best position a carrier to compete for lucrative business customers and which put their companies in a position to take advantage of demand for new, data-oriented services, from the home or the workplace. Digital switching technology, sophisticated transmission technologies, particularly fiber optic technology, and the underlying computer capability necessary to operate efficiently in today's environment will be given high priorities by cost-conscious managers in 1987. Other expenditures will be looked upon more skeptically.

Led by the RHCs, top management in the carrier industry will attempt to perfect a delicate balancing act: to increase capability geometrically while reducing expenditures arithmetically. Theirs will be a high-wire act in a glamorous business big top.

Should they succeed, they will be bathed in the market's applause and refreshed by ample bottom lines. Should their efforts be unsuccessful, they are likely to bathe in red ink and hear the galling sound of the market applauding some other managerial team. And the market tends to punish managers it doesn't applaud.

Technology makes success possible. But in an increasingly sophisticated, competitive and centralized industry, it is the ability of management to perform at the highest level it is capable of which determines a company's future.

The technology is there. It works and it is in demand. In 1987, the pressure will be on LECs and IXCs, particularly on their top managers, to put that technology to work to meet that demand profitably. □